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Customer Number



Patent

Case No.: 58961US002

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## IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

First Named Inventor: ROSENFLANZ, ANATOLY Z.  
Application No.: 10/666098 Group Art Unit: 1755  
Filed: September 18, 2003 Examiner: Elizabeth Bolden  
Title: CERAMICS COMPRISING  $Al_2O_3$ ,  $Y_2O_3$ ,  $ZrO_2$  AND/OR  $HfO_2$ , AND  $Nb_2O_5$   
AND/OR  $Ta_2O_5$  AND METHODS OF MAKING THE SAME

INFORMATION DISCLOSURE STATEMENT

Commissioner for Patents  
P.O. Box 1450  
Alexandria, VA 22313-1450

CERTIFICATE OF MAILING

I hereby certify that this correspondence is being deposited with the United States Postal Service as First Class Mail in an envelope addressed to: Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450 on:

August 10, 2004

Date

*Lisa Hengen*  
Signed by: Lisa Hengen

Dear Sir:

Pursuant to 37 CFR §§ 1.56, 1.97, and 1.98, enclosed is a completed Form PTO-1449, citing references submitted for consideration by the Examiner. Copies of any cited foreign patents, non-patent literature, and unpublished US application documents are enclosed. Pursuant to the waiver in the Pre-OG Notice, dated July 11, 2003, copies of US patents and published US patent applications are no longer required and are not enclosed. It is respectfully requested that the Examiner initial and return the enclosed Form PTO-1449 to indicate that each reference has been considered.

It is believed that no fee is due; however, in the event a fee is required, please charge the fee to Deposit Account No. 13-3723.

Respectfully submitted,

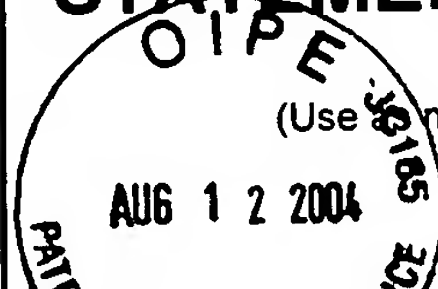
Date

August 9, 2004

By:

*Gregory D. Allen*  
Gregory D. Allen, Reg. No.: 35,048  
Telephone No.: (651) 736-0641

Office of Intellectual Property Counsel  
3M Innovative Properties Company  
Facsimile No.: 651-736-3833

Substitute for form 1449A/PTO (modified)  <h2 style="text-align: center; margin: 0;">INFORMATION DISCLOSURE STATEMENT BY APPLICANT</h2> <div style="text-align: center; margin-top: 10px;">  <p>(Use as many sheets as necessary)</p> </div>	<b>Application Number</b>	10/666098
	<b>Filing Date</b>	September 18, 2003
	<b>First Named Inventor</b>	Rosenflanz, Anatoly
	<b>Art Unit</b>	1755
	<b>Examiner Name</b>	Elizabeth Bolden
	<b>Attorney Case Number</b>	58961US002

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U.S. Patent Documents					
Exam. Init.*	Cite No.	Document Number	Publication Date or Issue Date MM-DD-YYYY	Name of Patentee or Applicant of Cited Document	Pages, Columns, Lines, Where Relevant Passages or Relevant Figures Appear
		Doc. Number-(Kind Code if Known)			
	A1	US- 3,625,717	12/07/1971	Grubba et al.	
	A2	US- 4,316,964	02/23/1982	Lange	
	A3	US- 4,757,036	07/12/1988	Kaar et al.	
	A4	US- 5,248,318 A	09/28/1993	Tamamaki et al.	
	A5	US- 5,413,974 A	05/09/1995	Yokoyama et al.	
	A6	US- 5,449,389	09/12/1995	Yoshizumi et al.	
	A7	US- 5,516,348 A	05/14/1996	Conwell et al.	
	A8	US- 5,547,479 A	08/20/1996	Conwell et al.	
	A9	US- 5,645,619	07/08/1997	Erickson et al.	
	A10	US- 5,611,829 A	03/18/1997	Monroe et al.	
	A11	US- 5,721,188	02/24/1998	Sung et al.	
	A12	US- 5,856,254	01/05/1999	Feige et al.	
	A13	US- 6,053,956 A	04/25/2000	Wood	
	A14	US- 6,277,161 B1	08/21/2001	Castro et al.	
	A15	US- 6,287,353	09/11/2001	Celikkaya	
	A16	US- 6,749,653 B2	06/15/2004	Castro et al.	

Foreign Patent Documents						
Exam. Init.*	Cite No.	Foreign Patent Document		Publication Date MM-DD-YYYY	Name of Patentee or Applicant of Cited Document	Pages, Columns, Lines, Where Relevant Passages or Relevant Figures Appear
		Ctry. Code	Number-KindCode (If known)			
	B1	DE	141 420	04/30/1980		X
	B2	EP	0 227 374	07/01/1987		
	B3	EP	0 236 507	09/16/1987		
	B4	EP	0 666 238 B1	08/09/1995		
	B5	EP	0 666 239 B1	08/09/1995		
	B6	FR	2 118 026	07/28/1972		X
	B7	GB	793,503	04/16/1958		
	B8	GB	1,005,338	09/22/1965		
	B9	GB	2 116 992	10/05/1983		

<b>*Examiner:</b>	<b>Date Considered:</b>
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*Information Disclosure Statement)*

<b>Substitute for form 1449A/PTO (modified)</b>  <b>INFORMATION DISCLOSURE STATEMENT BY APPLICANT</b>  (Use as many sheets as necessary)  Page 2 of 2	<b>Application Number</b>	10/666098
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		Ctry. Code	Number-KindCode (If known)				
	B10	GB	2 377 438 A	01/15/2003			
	B11	JP	61099665	05/17/1986			Abstract
	B12	JP	05-085821	04/06/1993			X
	B13	JP	06-171974	06/21/1994			X
	B14	JP	62-003041	01/09/1987			X
	B15	JP	2003-94414	04/03/2003			X

OTHER DOCUMENTS			
Exam. Init.*	Cite No.	Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc.), date, page(s), volume-issue number(s), publisher, city and/or country where published	Translation (Check if yes)
	C1	Aasland and McMillan, Nature 369, 633 (1994)	
	C2	Aguilar et al, "Melt Extraction Processing of Structural Y <sub>2</sub> O <sub>3</sub> -Al <sub>2</sub> O <sub>3</sub> Fibers", J. Eur. Ceram. Soc. 20 1091-1098 (2000)	
	C3	Gandhi, A.S. and Jarayam, V., "Pressure Consolidation of Amorphous ZrO <sub>2</sub> -Al <sub>2</sub> O <sub>3</sub> by Plastic Deformation of Powder Particles", Acta Materiala, 50 (2002), 2137-2149	
	C4	Gonzalez, Eduardo J., et al., "High Pressure Compaction and Sintering of Nano-Size $\gamma$ -Al <sub>2</sub> O <sub>3</sub> Powder", <i>Materials and Manufacturing Processes</i> Vol. 11, No. 6, 951-967, 1996	
	C5	Jantzen, C.M., Krepski, R.P., & Herman, H., "Ultra-Rapid Quenching of Laser-Method Binary and Unary Oxides", <i>Mat. Res. Bull.</i> 15, 1313-1326 (1980)	
	C6	Khor K.A., "Novel ZrO <sub>2</sub> -Mullite Composites Produced By Plasma Spraying", Proceedings of the 15 <sup>th</sup> International Thermal Pray Conference, 25-29 May 1998, Nice, France	
	C7	Ray, C.S. and Day, D.E., "Determining the Nucleation Rate Curve for Lithium Disilicate Glass by Differential Thermal Analysis", J. Am. Ceram. Soc. 73(2) 439-442 (1990)	
	C8	Schmucker, M, et al., "Constitution of Mullite Glasses Produced by Ultra-Rapid Quenching of Plasma-Sprayed Melts", Journal of the European Ceramic Society 15 (1995) 1201-1205	
	C9	Sarjeant, P.T. & Roy, R., in <i>Reactivity of Solids</i> (ed. J. W. Mitchell, R.C., DeVries, R.W., Roberts and P. Cannon) 725-33 (John Wiley & Sons, Inc., New York 1969)	
	C10	Takamori, T., & Roy, R., "Rapid Crystallization of SiO <sub>2</sub> -Al <sub>2</sub> O <sub>3</sub> Glasses", Journal of American Society, Vol. 56, No. 12, December 1973.	
	C11	Weber et al., "Synthesis and Optical Properties of Rare-Earth-Aluminum Oxide Glasses", J. Am. Ceram. Soc. 85(5) 1309-1311 (2002)	
	C12	Wilding, M.C., McMillan, P.F., "Polyamorphic Transitions in Yttria-Alumina Liquids", <i>J. Non-Cryst. Solids</i> . 293-295, 357-365 (2001)	

<b>*Examiner:</b>	<b>Date Considered:</b>
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